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DISCOVERIES AND CURRENT EVENTS *

Algeria: *Phoma flaccida* on Vine (1).

Phoma flaccida Viala et Ravaz developed to an unusual extent this year in the vineyards of the plain of the Mitidja. Particularly in the localities of Rouïba, Réghaïa, Fondouck and Ménerville ** the losses alarmed growers little familiar with the disease and, the greater number of them, ignorant of its existence. The fungus is however not new to North Africa. But in this part of the vine-growing region of Algeria it had never previously developed so acutely or in the form causing injury to the raceme. It was in fact the lesions at the base of the grape stalk and its first branchings which at the beginning of August drew attention by causing the partial or total withering of the grapes.

The lesions are due to cortical necrosis characterised exteriorly by the well-known dark bands, often stretching round the whole circumference of the organ attacked and gradually strangling it. When the phloem is attacked the food supply is hindered and gradually cut off causing withering. In many cases the disease enters the raceme by the stalk at its point of insertion, that is, from the stem.

It is on the dark parts, or, as sometimes happens, on the parts whitened by empty cells, that the fructifications later appear in the form of black, spherical conceptacles containing unicellular, colourless spores which are shuttle-shaped 5-7μ × 10-18μ) and sometimes slightly curved and drawn out on one side.

The disease has made its appearance on all the varieties of *Vitis vinifera* grown in the region, but Aramon, Hybrides-Bouchet and Carignan seemed to be the most affected.

This *Phoma* has existed for a long time in the Mitidja, but it was mainly in its late form of whitened stems with black points that it was observed at the time of or after the grape harvest and was of little consequence. More rarely it was observed in the same region in the form of abrasions at the base of the ripened shoots. It may be added that for a number of years previously the disease had occurred on the grape stalks, but only in certain sporadic and endemic centres,

* In this, as in the next chapter, the countries are arranged in French alphabetical order.

(1) Communication from the official correspondent of the Institute, Mr. J. CHRESTIAN, Professor of Plant Pathology at the Agricultural Institute of Algeria.

** Further particulars of the extent of the invasion will be given later.

the best known of which is Ténès in western Algeria, which is the locality where it was identified by Dr. Trabut in 1913 *.

Thus this species, which is essentially a stem parasite and somewhat sparse on the vine, this year has finally departed from its habit and has extended its area and spread further than usual on to the branches of its host.

Probably the weather may be regarded as responsible for this extention of this *Phoma*. The spring and summer of 1932 were less warm and wetter than normally. These conditions favoured the development of the fungus, which is generally late, and thus gave it the opportunity to travel further.

Growers whose vines have suffered from this *Phoma* propose to check the disease by winter treatments, at any rate those who have not hitherto thought it necessary to carry out such treatments, the use of which is becoming more and more general and may be said to be indispensable for one reason or another for every bush and tree fruit. The Crop Protection Service of Algeria will give any further information necessary to persons concerned.

Algeria: The Peach Twig Borer (*Anarsia lineatella*), a New Parasite for the Country (1).

The Crop Protection Service noted last spring in the orchard of the College Farm of Aïn-Témouchent, near Oran, the occurrence of a parasite of the peach, *Anarsia lineatella* Z., which is new to the fauna of Algeria though widely spread in Southern France and Central Europe. The damage of the insect is characterised by wilting followed by death of the new growth. Early in June the fruits are attacked. These, which are nearly ready for gathering, show a minute puncture at some point on the surface and a drop of gum marks the place where the parasite penetrated. The insect is readily detected in the pulp of the fruit.

A preliminary enquiry made during the course of the summer showed that the dispersion of the new moth was not limited to the single commune of Aïn-Témouchent, but extended also into the neighbouring fruit regions of Bou-Sfer, El-Ançor and Misserghin. The necessary measures were immediately prescribed.

Eritrea: Tropical Migratory and Desert Locusts (*Locusta migratorioides* and *Schistocerca gregaria*) (2).

During September 1932 a great number of locust swarms were reported and groups of hoppers in various localities in the western plain, the upland plateau and the eastern plain.

* The fungus from Ténès studied by Dr. Trabut and Dr. R. Maire was not identified as *Phoma flaccida* Viala and Ravaz but as *Phoma Cookei* Pirotta, which is said by the writers to be closely related to *Phoma reniformis* Viala and Ravaz, which by many is thought to be synonymous with *Phoma flaccida*.

(1) Communication from the official correspondent of the Institute, Mr. Delassus, Crop Protection Inspector, Algiers.

(2) Communication from the official correspondent of the Institute, Dr. R. Guidotti, Chief of the Agricultural Bureau of Eritrea, transmitted by the Government of the Colony.

A single deposit of eggs was noted in the territory of Barentù at Selest Logodat on the 6th. The great majority of the swarms of adults and the hoppers belonged to *Locusta migratorioides*; the swarms of *Schistocerca gregaria* were small and scattered.

During September numbers of locusts also invaded the Colony from over the frontiers of Abyssinia and the Anglo-Egyptian Sudan. The territory between the Gasc and the Setit and that of Agordat and Barentù were crossed by numerous swarms of *L. migratorioides*.

On the 4th a swarm of *S. gregaria* about 300 by 400 metres passed over Agordat flying in a westerly direction; two other swarms, also of *Schistocerca*, were reported between the 18th and 20th towards Cheren and between Tessenei and Sabderat. Eggs were deposited however in the Dorfù valley and in the vicinity of Ghinda.

The hoppers of *Schistocerca* and *Locusta* on the breeding centres scattered over the whole territory of the Colony were for the most part killed by the local natives under the direction of a white personnel skilled in locust control.

The total damage was not very serious:—

In the western plain in the territory of Barantù about 60 hectares planted with doura (*Andropogon Sorghum*) and bultuc (*Pennisetum typhoideum*) and at Gulsa, near Tessenei, certain fields of doura; on the upland plateau in the Cohain and in the Mai Tzada (Seraè) about 50 hectares of doura, taff (*Eragrostis abyssinica*) and dagussà (*Eleusine coracana*); in the eastern plain some pastures.

United States of America: An Epidemic of Bacterial Wilt of Maize (1).

Bacterial wilt (caused by *Aplanobacter stewartii* (E. F. S.) McC.) of maize (Indian corn) unusually severe in many localities in 1930 and 1931, this year (1932) reached a degree of severity and extent of distribution in the northeastern United States probably not equalled in the history of Plant Pathology, and certainly the worst since Stewart published his description of the disease thirty-five years ago.

In connection with the various State reports briefly summarized below and particularly that of New York, interesting comparisons may be made with Stewart's statement of 1897 which is as follows:—

'The disease has been widespread on Long Island, N. Y. [during 1895, 1896, and 1897] and, in several instances, destructive, particularly in the season of 1897. Occasionally, an entire crop has been ruined and losses of from 20 to 40 per cent have been frequent'.

Illinois: Losses worse in the present year than in any of which we have record, although in 1930 and 1931, it was very common and destructive.

(1) Communication from the official correspondent of the Institute, Dr. Neil E. Stevens, Senior Pathologist, Plant Disease Survey, Bureau of Plant Industry, United States Department of Agriculture, Washington.

Sweet corn losses appear to run from 90 per cent in early market varieties to 30 per cent in the later canning varieties. Bacterial wilt is unusually prevalent in dent corn this year.

OHIO: Reported as unusually severe even as early as June 20.

WEST VIRGINIA: Epidemic during 1931 and 1932.

PENNSYLVANIA: 65 per cent of the sweet corn in Salem Township, Luzerne County, destroyed, also abundant in Wyoming and as far north as Susquehanna County. In Mercer County not a sweet corn patch which does not show from 30 per cent to as high as 90 per cent of the plants killed. In Armstrong County the disease was so abundant that infestations of 33 per cent appeared light. On one farm 99 per cent of the sweet corn stalks were killed.

NEW JERSEY: Large number of reports of the disease. Probably no more prevalent than in 1930. In the experimental plots at New Brunswick some of the plantings showed as high as 100 per cent infection.

NEW YORK: Before 1932 this disease was reported, except for a few isolated plants, only from the southern tier of Counties and on Long Island and in the Lower Hudson Valley. This year very severe, 40 per cent to 60 per cent infection on early varieties on Long Island, and equally severe in Rockland County, not far from New York City. Rather common along Lake Erie in Chautauqua and Erie Counties as far as Buffalo.

CONNECTICUT: The first commercial loss from this disease ever observed in the State. Certainly the first which has occurred in thirty years. Losses up to 20 per cent reported in the earliest varieties of sweet corn in the southern part of the State.

MASSACHUSETTS: Prior to this year only scattered diseased plants observed. Primary infections and consequent crop losses from 2 per cent to 5 per cent in the earliest varieties in the southern part of the State and within fifty miles of the eastern seaboard. Present but not serious in the northern Counties.

Throughout the areas it has been generally observed that the early planted sweet corn has been most seriously affected by the disease.

Dr. Charles Chupp of New York comments in a recent communication:— 'The combination of weather conditions must be unusual this season for I have never known so many rare types of vegetable diseases being destructive in this State'.

Dr. G. P. Clinton and Miss Nellie A. Brown have commented on the unusual prevalence of bacterial diseases this year.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Germany. — By Decree of 30 September 1932, which came into force on 15 October 1932, with a view to preventing the introduction of *Tortrix pronubana* the importation of carnations (cut flowers) is forbidden until further notice during the period from 15 March to 30 November of each year. (*Reichsgesetzblatt*, Teil I, Berlin, 10. Oktober 1932, Nr. 68, S. 492).

*** By Decree of 7 October 1932 the importation and transit of the Colorado beetle [*Leptinotarsa decemlineata*], alive, and at any stage of the life history, are forbidden. (*Reichsgesetzblatt*, Teil I, Berlin, 22. Oktober 1932, Nr. 69, S. 496).

England. — By the Apple Capsid (Essex) Order of 1932, which came into operation on 1 November 1932, the Minister of Agriculture and Fisheries orders as follows :—

(1) Any person other than a private grower (a person who does not grow fruit for sale or does not receive upon his premises Apple trees or Gooseberry or Currant bushes for sale) who receives within the district (the administrative county of Essex or the County Borough of East Ham, Southend-on-Sea, or West Ham, or the Borough of Colchester, Ilford, Leyton or Walthamstow as the case may be) any Apple trees or Gooseberry or Currant bushes for planting or for sale for planting shall notify the fact by post or otherwise to the Local Authority for the district within fourteen days from the date of the receipt thereof.

(2) An officer appointed by the Local Authority for the purpose of this Order (hereinafter called 'the appointed Officer'), upon production if so required of his appointment, may at all reasonable times enter upon any premises in the district and examine any Apple trees or Gooseberry or Currant bushes thereon, and the occupier of the premises shall give to him all reasonable facilities for carrying out the examination.

(3) The Local Authority on being satisfied by a report from the appointed Officer that the Apple Capsid (*Plesiocoris rugicollis*) exists on any Apple trees or Gooseberry or Currant bushes on any premises within the district (a) may serve upon the occupier of the premises a Notice requiring him within such time as may be prescribed in the Notice to treat the Apple trees or Gooseberry or Currant bushes in such manner as may be prescribed in the Notice. (b) Nothing in this Order shall prevent the occupier of premises, upon whom a Notice has been served under subparagraph (a) hereof, completely destroying by fire or otherwise any Apple trees or Gooseberry of Currant bushes in respect of which a Notice has been served upon him, and if he does so destroy them he shall be deemed to have complied with the Notice. (c) Where a Notice has been served under subparagraph (a) hereof, the appointed Officer shall, if so directed by the Local Authority, ascertain whether the Notice has been complied with.

(4) The Local Authority shall furnish to the Ministry a report of any action taken by it under this Order, together with a copy of any Notice served under Article 3 (a) hereof. (*The Gardeners' Chronicle*, London, November 5, 1932, Third Series, Vol. XCII, No. 2393, p. 332).

Australia (Commonwealth of). — By Quarantine Proclamation No. 215 of 5 May 1932 it is forbidden to import into Australia plants of the genus *Humulus* coming from any country whatever. Importation is authorised, however, of the flower parts known commercially as hops provided that they come from a country where the downy mildew [*Pseudoperonospora Humuli*] or the mosaic are not known to occur. (*Deutsches Handels-Archiv*, Berlin 1932, 86. Jahrg., 2. Augustheft, S. 1692).

Spain. — By ' Orden ' of 6 October 1932 authorisation has been granted from the 18th of the same month to 31 January 1933 for importation free of duty of potatoes for seed belonging to the early varieties ' Royal Kidney ', ' Majestic ', ' Paulsen Juli ', ' Escocia ', ' Red King ', and of other foreign varieties which develop early in the potato growing regions of Spain, on the condition, *inter alia*, that consignments are accompanied by a sanitary certificate. (*Gaceta de Madrid*, Madrid, 8 octubre 1932, año CCLXXI, tomo VI, núm. 282, pág. 165).

France. — By Decree of 14 October 1932 modifications of the regulations contained in Art. 1 of the Decrees of 18 April and 23 May 1932 [see this *Bulletin* 1932, No. 5, p. 80 and No. 8, p. 133] may be granted as an exceptional and temporary measure by Inter-Ministerial Decree of the Ministers of Agriculture, Commerce and Industry and of the Budget. (*Journal Officiel de la République Française*, Paris, 20 octobre 1932, LXIX^{ème} année, n° 246, p. 11227).

*** By Inter-Ministerial Decree of 19 October 1932 importation into France of rhizomes of lily of the valley grown in and coming from Germany is authorised as an exceptional measure until further order. (*Ibid.*, p. 11227).

*** By a Ministerial Decree of 2 November 1932 the provisions of article 1 of the Decree of 8 March 1932 [see this *Bulletin*, 1932 n° 4, p. 57] relating to measures for preventing the introduction of the San José scale (*Aspidiotus perniciosus*) into France are made applicable to consignments coming from Rumania.

The entry into and transit in France of fresh fruits coming from Rumania may take place only by the customs office of Kehl-Strasburg. (*Journal Officiel de la République Française*, Paris, 5 novembre 1932, LXIV^{ème} année, n° 259, p. 11694).

Guatemala. — By Decree of 4 June 1932 the phytosanitary certificates established by Decree of 29 August 1919 will no longer be required in the case of flower and vegetable seeds sent in small quantities through the post.

For every other consignment, including potatoes for food or seed, the consuls of Guatemala will require the presentation of phytosanitary certificates before the customary permit can be issued. (*Deutsches Handels-Archiv*, Berlin 1932, 86. Jahrg., 1. Septemberheft, S. 1864).

Italy. — Ministerial Circular No. 290 of 8 September 1932 contains the rules to be observed in the exportation of plants, plant parts and fruits to Austria, in conformity with Decree No. 222 of 18 July 1932 which came into force in the Republic of Austria on 16 September 1932. (*Bollettino Ufficiale del Ministero dell'Agricoltura e delle Foreste*, Roma, 1° ottobre 1932, anno IV, n. 19, pp. 2861-2863).

*** By Ministerial Decree of 16 September 1932 the commune of Fondi in the province of Rome has been declared infected with grape phylloxera. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 27 settembre 1932, anno 73°, n. 224, p. 4304).

*** A Ministerial Decree of 30 September 1932 provides new special regulations concerning exportation of cauliflowers. It is forbidden to export cauliflowers having the inflorescence attacked by parasites or damaged by frost or having the stalk blackened and beginning to rot. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 13 ottobre 1932, anno 73°, n. 238, pp. 4563-4566).

Morocco (French Zone). — By Decree of the Director of Waters and Forests, dated 17 September 1932, owners or holders of land in the territory of Ouezzan (region of Fez) are authorised to destroy wild boars on their land at any time and by any means except fire. Boars killed in these conditions may not however be transported, hawked or marketed. This Decree will carry effect until the last day of the close season of 1933. (Empire Chérifien. Protectorat de la République Française au Maroc. *Bulletin Officiel*, Rabat, 30 septembre 1932, XXI[ème] année, n° 1040, p. 1138).

*** A Decree of the Director General of Agriculture, Commerce and Land Settlement, dated 29 September 1932, contains *inter alia* the provision that potatoes exported to France or Algeria under the quota agreement shall be free from cryptogamic diseases. (*Ibid.*, p. 1129-1130).

*** By a further Decree of the Director General of Agriculture, Commerce and Land Settlement, also dated 29 September 1932, tomatoes exported to France or Algeria under the quota agreement must be free from cryptogamic diseases. (*Ibid.*, p. 1130-1131).

*** A Decree of the Director General of Agriculture, Commerce and Land Settlement, dated 28 September 1932, provides for the organization of circumscribed areas for purposes of crop protection and indicates the officials of the General Administration of Agriculture, Commerce and Land Settlement who will be responsible for the plant protection policy in the French zone of the

Sherifian Empire. (Empire Chérifien. Protectorat de la République Française au Maroc. *Bulletin Officiel*, Rabat, 7 octobre 1932, XXI[ème] année, n° 1041, pp. 1159-1160).

Tunis (Regency of). — A Decree of 11 July 1932 (9 rabia I 1351) contains *inter alia* the following regulations : —

The Director General of Agriculture, Commerce and Land Settlement shall determine by Order the list of plant and animal parasites that are a danger to crops and to which shall apply the measures contained in the present Decree.

It is forbidden to introduce, transport or hold in possession in a live state and in any form whatever, any of the plant and animal parasites included in the list referred to above.

Importation, circulation and transit are forbidden of : —

(1) All plants or aerial or underground parts of plants in a live state if contaminated with one of the parasites included in the said list ;

(2) Packages having been used for the transport of such plants or parts of plants ;

(3) All other objects or products capable of carrying or spreading these parasites.

To be admitted for importation, subject to the conditions contained in Arts. 3, 4 and 6 of the Decree of 5 July 1924, plants or parts of plants coming from a country which has signed the International Convention of Rome of 16 April 1929 [see this *Bulletin*, 1929, No. 4, pp. 50-55], shall be : —

(1) Accompanied by a certificate of health and origin conforming to the model annexed to the International Convention of Rome ;

(2) Submitted to sanitary inspection by an official appointed for the purpose by the Director General of Agriculture, Commerce and Land Settlement.

Plants or parts of plants coming from a country which has not signed the International Convention of Rome shall be : —

(1) Accompanied by a certificate issued by the competent authority or Service of the country of origin and endorsed by the French Consular authority of the country stating that the consignment is free from the parasites specified in the Order referred to above ;

(2) Submitted to sanitary inspection.

The official responsible for the sanitary inspection will verify the validity of the certificate, examine the consignment and, if it is free from parasites, issue a permit to the Customs Office.

If a consignment is not accompanied by a certificate or if its examination reveals the presence of a parasite, the official responsible for inspection has the authority to order the return or destruction, according to the wish of the consignee or his representative, or disinfection of the plants, but at Tunis only.

Orders of the Director General of Agriculture may authorise, without certificate or sanitary inspection, importation of specimens of plant diseases and pests and of infected plants which present no danger by reason of either their nature or their utilisation.

Owners or occupiers of urban or rural property are required to inform the administrative authority of their district of any abnormal condition, destruction or damage caused to crop plants on their property by parasites which are or threaten to be of an epidemic nature.

Holders in any condition whatever of living plants or plant parts are required to make similar declarations.

Such declarations will be transmitted immediately by the administrative authority to the Director General of Agriculture.

Officials of the technical staff of the General Administration of Agriculture, Commerce and Land Settlement and any person undertaking official biological studies, whenever they shall ascertain the presence of plant parasites, whether as a result of field observations or laboratory research, are required immediately to inform the Director General of Agriculture, indicating the land where the parasites were observed or from which specimens were taken.

If such information or research leads to establishing the presence of any of the parasites included in the above-named list, the Director General of Agriculture may fix by Order : —

(1) The limits of the infected zone, comprising the localities and land where the presence of the parasite has been ascertained together with a circumjacent safety zone ;

(2) The measures and treatments necessary to prevent or check the development of the invasion.

Within the zones so delimited owners or occupiers are required to carry out the prescribed measures.

The State, communes and public establishments are under the same obligations as private persons on property they hold.

In case of the owners or holders failing to execute the measures and treatments prescribed these operations will be carried out officially at the expense of the persons concerned, without prejudice to the penalties prescribed by the present Decree.

Owners or occupiers must allow the entry of the officials authorised to carry out the prescribed measures.

The sum of the expenses is recoverable in conformity with the Decree of 28 December 1900.

No indemnity is payable for damages of any nature which may result from the execution of the prescribed measures.

When however the execution of these measures entails destruction within the safety zone of plants which are not infected but whose destruction is necessary to avoid the spread of the disease, compensation may be granted to the rightful claimants.

Establishments such as nursery gardens, gardens or other horticultural land regularly used for the production of or commerce in plants or plant parts intended for propagation purposes (plants, layers, cuttings, slips for grafting, bulbs, tubers, seeds, etc.) will be submitted to a sanitary control comprising one or more inspections annually by officials in charge of plant sanitary control.

Owners or occupiers of any sort of establishments submitted to such sanitary control must inform the General Administration of Agriculture, Commerce and Land Settlement between 1 November and 31 December of each year, on paper not requiring a Government stamp, that they are engaged in the production of or commerce in the products specified above and state the exact position of the crops, their acreage and the kind of plants grown.

Owners or occupiers of such establishments must carry out all the preventive or control measures prescribed by the officials in change of plant sanitary control.

Certificates of healthy condition and origin will be issued by the officials in charge of plant sanitary control :—

(1) For exportation of plants originating from crops submitted to sanitary control, on condition that all the prescribed preventive and control measures have been carried out. The issue of the certificate may be subject also to previous inspection of the consignments.

(2) For exportation of plants originating from crops not submitted to sanitary control, after previous inspection. (*Journal Officiel Tunisien*, Tunis, 7 septembre 1932, 50e année, nº 72, p. 2019-2021).

Yugoslavia. — In Letter No. 12310/II of 4 March 1932, the Ministry of Agriculture states as follows the regulations relating to the control of the importation and transit of flowers:—

(1) Consignments of flowers passing through the country accompanied by an official phytosanitary certificate will not be inspected if carried in closed wagons.

(2) Flowers imported into the country will be inspected only in exceptional cases when it is necessitated by serious reasons. (*Deutsches Handels-Archiv*, Berlin 1932, 86. Jahrg., 1. Augustheft, S. 1603-1604).

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[According to the writer the fungus causing the disease of *Hevea brasiliensis* and of tea, known as brown-root of rubber-trees and tea-bushes, is not *Fomes lamaensis* (Murr.) Sacc. et Trott. It is a distinct species which he names *F. noxius* n. sp. This species is also suspected of being the cause of the disease of *Elaeis guineensis* called stem-rot of oil-palms in the East Indies. *F. lamaensis* is a saprophyte occurring in the forests and rarely found on cultivated land in Malaya. Diagnoses in Latin are given *inter alia* of *F. noxius*, *F. lamaensis* var. *secedens* n. var., and *F. pachyphloeus* Pat. var. *hispidus* n. var.].

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[Against *Plasmopara viticola*].

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[*Bruchus rufimanus*].

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[*Xylomyges eridania*, *Syntomeida* sp., *Laphygma frugiperda* on *Ipomoea Batatas* in Brazil. In the present note only the first is considered in detail].

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[*Phelipaea ramosa*].

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[List of 67 species, varieties and forms, certain of which are new to science. Diagnoses in Latin].

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[*Tilletia Tritici*, *T. levis*].

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[*Oncopeltus fasciatus* (=*O. aulicus*), *O. varicolor*, *Blissus leucopterus* (only a single specimen of this last has been taken by the writer), *Ischnorrhynchus championi*, *Nysius* spp.].

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[*Colletotrichum gloeosporioides*, *Oidium* sp., *Sphaceloma* sp., *Fusarium* sp., *Pestalozzia* sp., *Cladosporium* sp., *Hendersonia* sp., *Diplodia natalensis*, *D. Theobromae*].

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[*Fusarium bulbigenum*].

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[*Natada nararia*, *Parasa lepida*, *Narosa conspersa*, *Thosea cervina*, *T. recta*, *T. cava*, *Spatulicraspeda castaneiceps*, *Scopelodes venosa*, *Belippa laleana*].

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[*Rhoptromeris eucera*, *Loxotropa tritoma*, *Halticoptera fuscicornis*, *Callitula bicolor*].

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Jenkins, Anna E., and White, R. P. Identification of Diaporthe umbrina on rose from England. *Mycologia*, Lancaster, Pa., 1932, Vol. XXIV, No. 6, pp. 485-488, pls. 18-19.

[The identification of the fungus observed at Cheltenham, Gloucestershire, as *D. umbrina* constitutes the first record of the presence in Europe of this serious parasite of the rose].

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[*Taphrina deformans, Clasterosporium carpophilum, Sclerotinia cinerea, Anuraphis amydali, Myzus persicae, Hyalopterus arundinis, Neurotoma nemoralis, Cheimatobia brumata, Hybernia defoliaria, Lymantria dispar, Diaspis leperii*].

Joessel, P.-H., et Bordas, J. Recherches sur les dépérissements de l'abricotier dans la vallée du Rhône (1927 à 1930). *Annales des Epiphyties*, Paris, 1932, 17e année, nº 5 (1931), p. 325-361, fig. 1-5, 1 carte, pl. I-VII. Bibliographie, p. 360-361.

[In certain cases the decay would seem to be definitely due to : – (1) physiological causes, such as drought ; (2) insects, amongst which in the valley of the Lower Rhône, *Capnodis tenebrionis* plays a particularly active part ; (3) root rot (*Armillaria mellea*). The cause of a number of other cases has not yet been determined with certainty. The writers consider it probable that a large part may be attributed to the browning of the wood, which generally starts from dead parts left on the tree, or from injuries made in the nursery or during pruning or tillage operations].

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[*Tribulus terrestris*].

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[Virus disease].

Landucci, Vasco. Esperienze sulla lotta contro la moria dei semenzali. *L'Alpe*, Firenze, 1932, anno XIX, n. 10, pp. 359-367, 8 figg.
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Le Clerg, E. L. Leaf temperature of lettuce and its relation to tipburn. *Phytopathology*, Lancaster, Pa., 1932, Vol. 22, No. 10, pp. 851-854. Literature cited, p. 855.
[The cause of the disease called tipburn is not yet determined].

Lehmann, Hans. Wanzen (Hemiptera-Heteroptera) als Obstbaumschädlinge. *Zeitschrift für Pflanzenkrankheiten (Pflanzenpathologie) und Pflanzenschutz*, Stuttgart 1932, 42. Jahrg., Heft 9, S. 440-451, Abb. 1-4. Literaturverzeichnis, S. 451.
[The following species are particularly serious in Germany: *Tropicoris rufipes*, *Stephanitis pyri*, *Plesiocoris rugicollis*, *Calocoris biclavatus*, *Lygus pabulinus*, *L. pratensis*].

Lendner, Alf. La maladie des ormeaux. *Revue Horticole Suisse*, Genève, 1932, 5e année, nº 11, p. 241-247, fig. 1-6. Bibliographie, p. 247.
[According to the observations made by the writer in Geneva the disease of young elms is due primarily to a bacterium (probably *Pseudomonas lignicola* Westerdijk) and secondarily to a fungus (*Graphium Ulmi* Schwarz = *Ceratostomella Ulmi* Buisman).

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[*Bacterium Malvacearum*].

Lester-Smith, W. C. Citrus mildew. *Phytopathology*, Lancaster, Pa., 1932, Vol. 22, No. 10, p. 870.
[Reports *Oidium tingitaninum* on various species of *Citrus* in Ceylon].

Link, George K. K., and Ramsey, Glen B. Market diseases of fruits and vegetables. Potatoes. *United States Department of Agriculture. Miscellaneous Publication No. 98*, Washington, D. C., 1932, 62 pp., 15 pls. Literature cited, pp. 53-62.
[*Alternaria Solani*, *Armillaria mellea*, *Bacillus carovotovorus*, *B. Aroideae*, *B. mesentericus*, black-heart, *B. phytophthorus*, *Bacterium Solanacearum*, chemical (salt) injury, drought and heat necrosis, enlarged lenticels, freezing injury, *Fusarium* spp., greening (sunburn), growth cracks, knobbiness, and second growth, hollow heart, immaturity, internal brown rot, *Rhizoctonia Solani*, *Phytophthora infestans*, *Pythium De Baryanum*, net necrosis, *Phyt. erythroseptica*, *Spongospora subterranea*, *Rhizopus* spp., *Caconema radicicola*, *Actinomyces Scabies*, *Sclerotium Rolfsii Spondylocladium atrovirens*, spindle tuber, *Verticillium alboatrum*, *Rhizoctonia Crocorum*, *Synchytrium endobioticum*].

López, A. W. Research progress on locust situation. An extract from the monthly letter of the Research Bureau, Philippine Sugar Association. *Sugar News* Manila, P. I., 1932, Vol. XIII, No. 7, pp. 434-437.
[Text also in Spanish].

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[*Plasmopara viticola*].

Martínez Martínez, Miguel. Contribución al estudio de las Digitales (7ª nota). *Boletín de la Sociedad Española de Historia Natural*, Madrid, 1932, tomo XXII, núm. 4, págs. 205 a 212, figs. 1-4. Bibliografía, págs. 211 y 212.
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Montemartini, L. Funghi agrumicoli dell'Asmara. *Bollettino di Studi ed Informazioni del R. Giardino Coloniale di Palermo*, Palermo, 1932, vol. XII, pp. 1-3, figg. 1-2.
[*Colletotrichum glozosporioides* on leaves of bitter oranges and probably also on those of sweet oranges and of *Citrus maxima*; *Cladosporium*, related to *Cl. herbarum* or belonging to the same group, on the rind of sweet oranges at Cheren, Eritrea].

Montemartini, Luigi. Le ruggini del grano in Sicilia. (Constatazioni e problemi). *Il Naturalista Siciliano*, Palermo, 1932, anno XXVIII, n. ser., vol. 8°, pp. 21-23.
[After an account of the species of *Puccinia* most frequent on wheat in Sicily (*P. triticina* and *P. glumarum*) follow observations on the varying susceptibility of the wheats grown and on the diffusion of the disease and the action of external and internal factors on it].

Morris, H. M. Insect pests and fungus diseases of Cyprus and their control. *Agricultural Department, Cyprus. Bulletin No. 3 (Entomological Series)*, Nicosia, 1932, 56 pp., 12 figs.

Muggeridge, J. Spread of *Pieris rapae* butterfly and progress of parasite work. *The New Zealand Journal of Agriculture*, Wellington, 1932, Vol. 45, No. 3, pp. 132-135, figs. 1-3.
[*P. rapae* and its parasite *Apanteles glomeratus*].

Murillo, Luis María. El Archipiélago de San Andrés desde el punto de vista de sus industrias y de su sanidad vegetal. *Boletín de Agricultura*, Bogotá, 1932, año V, núms. 1 y 2, págs. 55 a 70, 5 figs.
[Indicates the pests (particularly scale insects) and diseases of the coconut].

Murillo, Luis María. Recolección y conservación de insectos durante las excursiones. *Boletín de Agricultura*, Bogotá, 1932, año V, núm. 7, págs. 472 a 475, 1 fig.
[Reports, *inter alia*, *Xyleborus cuneatus*, *X. monachus* (?), *Euwallacea* sp., *Captoborus* sp., *Thione championi* as injurious to the cacao and *Trypopremnon* sp. as injurious to the potato in Columbia].

Muskett, Arthur E., and Cairns, Hugh. The effect of seed disinfection upon the oat crop in Northern Ireland. *The Annals of Applied Biology*, London, 1932, Vol. XIX, No. 4, pp. 462-474. References, p. 474.
[*Ustilago* spp.].

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NEUWEILER, E. Der Kartoffelkrebs in der Schweiz. *Landwirtschaftliches Jahrbuch der Schweiz*, Bern 1932, XLVI. Jahrg., Heft 5, S. 680-688, 1 Karte.
[*Synchytrium endobioticum* during the years 1925-1931].

NEWMAN, L. J. The pea weevil (Bruchus pisorum, Linn.). *Journal of the Department of Agriculture, Western Australia*, Perth, 1932, Vol. 9 (Second Series), No. 2, pp. 297-300, figs. 1-2.
[Until recently *B. pisorum* had not been recorded in Western Australia].

NEWMAN, L. J., and WOMERSLEY, H. Clover springtail (lucerne flea) (Smynthurus viridis) investigation. *Journal of the Department of Agriculture, Western Australia*, Perth, 1932, Vol. 9 (Second Series), No. 2, pp. 289-290, 1 fig.
[Reports the discovery of *Biscirus lapidarius*, a predator of *S. viridis*].

OPPI, ERCOLANO. Va bene il polisolfuro di calcio contro le cocciniglie del pesco? *Il Coltivatore e Giornale Vinicolo Italiano*, Casale Monf., 1932, anno 78° e 58°, n. 43, pp. 455-458.
[Lime sulphur was found to have little effect against *Diaspis leperii*].

PAGLIANO. La lutte contre le pou rouge. Les huiles blanches. *Bulletin de la Société d'Horticulture de Tunisie*, Tunis, 1932, 30e année, nº 291, p. 155-158.
[White oils against *Chrysomphalus minor*].

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PALM, B. T. Eriodendron as host of Bacterium malvacearum. *Phytopathology*, Lancaster, Pa., 1932, Vol. 22, No. 10, pp. 867-868.
[*Eriodendron anfractuosum*].

PESCOTT, R. T. M. The cherry borer moth. A serious pest to street trees. *The Journal of the Department of Agriculture, Victoria, Australia*, Melbourne, 1932, Vol. XXX, Pt. 10, pp. 487-488, 495, figs. 1-[6]. References, p. 495.
[*Maroga unipunctata* on *Ulmus campestris*, *Platanus orientalis* and *Salix babylonica*].

PETCH, T. Some Philippine entomogenous fungi. *Annales Mycologici*, Berlin 1932, Vol. XXX, No. 1/2, S. 118-121.
[List of 11 species, of which 2 are new to science. Diagnoses in Latin are given of these last].

PETHYBRIDGE, GEO. H., and KENNETH, M. SMITH. A suspected virus disease of Zonal Pelargoniums. *The Gardeners' Chronicle*, London, 1932, Third Series, Vol. XCII, No. 2395, pp. 378-379, figs. 189-190.
[In England].

PETIT, GABRIEL. 2e Conférence Internationale et Congrès Colonial du Rat et de la Peste. Paris, 7-12 octobre 1931. Documents réunis et publiés par le Professeur Gabriel Petit, Secrétaire général. Paris, Vigot frères, éditeurs, 1932, 650 p., 81 portraits, 35 vues diverses.

[The contents of this volume include communications relating more particularly to rats and agriculture (pp. 536-559)].

PETRI, L. Alcune osservazioni sopra i trattamenti invernali agli alberi da frutto. *Revue de Pathologie Végétale et d'Entomologie Agricole*, Paris, 1932, tome XIX, fasc. 3, p. 76-77.

[With summary in French].

PITTMAN, H. A. Brown rot of citrus. A serious disease that can be easily prevented. *Journal of the Department of Agriculture, Western Australia*, Perth, 1932, Vol. 9 (Second Series), No. 2, pp. 286-289. Literature cited. p. 289.

[*Phytophthora citrophthora*].

PORTER, D. R. Some environmental relations of watermelon wilt. *Phytopathology*, Lancaster, Pa., 1932, Vol. 22, No. 10, pp. 813-825, figs. 1-3. Literature cited, p. 825.

[*Fusarium niveum*].

PRICE, W. C. Acquired immunity to ring-spot in Nicotiana. *Contributions from Boyce Thompson Institute*, Menasha, Wisconsin, 1932, Vol. 4, No. 3, pp. 359-403, figs. 1-9. Literature cited, pp. 402-403.

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NOTES

The Mycological Society of America. — The Mycological Section of the Botanical Society of America, Brooklyn, New York, formed a new society, the Mycological Society of America. The officers of the new organization are ; President, W. H. Weston, Jr. ; Secretary-Treasurer, H. M. Fitzpatrick, and Councilors, H. S. Jackson, C. R. Orton and Neil E. Stevens.

VIth International Entomological Congress. — This Congress will be held in 1935 at Madrid and the President will be Professor Ignacio Bolívar y Urrutia, Director of the National Natural Science Museum in Madrid.

International Competition for a Method of Controlling the Root Rot of Citrus Trees. — The last date for entering this competition organised by the 'Camera Agrumaria' of Messina, Italy [see this *Bulletin*, No 7, p. 136] has been postponed to 31 March 1933.

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